UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,880	02/11/2004	Allan Madsen	112740-936 .	6697

7590	04/06/2006

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EXAMINER
HERRERA, DIEGO D

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/777,880	MADSEN, ALLAN
	Examiner	Art Unit	
	Diego Herrera	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*2/11/2004*</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*1-6*</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>*1-6*</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>*11 February 2004*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
        1.☒ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on 8/16/2004 was filed.

The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statement is being considered by the examiner.

Specification

2.   The disclosure is objected to because it contains an embedded hyperlink and/or

other form of browser-executable code. Applicant is required to delete the embedded

hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

3.   The disclosure is objected to because of the following informalities: there is an

extra "f", line 26 page 2 of specification. Punctuation needs correction page 8 lines 21-

22. Appropriate correction is required.

4.   The disclosure is objected to because of the following informalities: page 4 lines:

22-26, the applicant refers to a cell and then parts of the same cell with the term "cells",

unfortunately this term is confusing, the examiner requires that the applicant considers

changing the term "cells" to "sectors" through out the specification and claims.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating
            obviousness or nonobviousness.

7.   Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ville

et al. (EP0930513 A2), and in view of Padovani et al. (US PATENT 5577022).

8.   Regarding claim 1, Ville et al. discloses a method for forming a set of cells for

time difference measurements (paragraph [0029], Ville teaches propagation delay

difference method of measurement between serving station and targeted station) for a

mobile terminal camped on a first cell of a cellular network and being in idle mode

(paragraphs [0005]-[0006], Ville teaches method for mobiles in a cellular network

camped receiving information about base stations availability), the method comprising

the steps of:

        a.   Receiving, at the mobile terminal, a first set of cell identifiers respectively

associated with neighboring cells of the first cell, with each of the neighboring

cells sending a radio signal (paragraph [0012] & [0015]);

        b.   Measuring, at the mobile terminal, received signal strengths of the

neighboring cells having identifiers which are included in the first set of cell

identifiers (paragraph [0007]-[0009],), with a number N of cells having a signal

strength exceeding a predefined threshold constituting a set of available cells

(paragraph [0012],);

c.   Reading, at the mobile terminal, a synchronization channel for the set of

available cells, thereby measuring time differences for the set of available cells

(paragraphs [0015]-[0018], & [0026]-[0028],);

d.   Reading, at the mobile terminal, synchronization channel for the set of

cells, thereby measuring time differences for the set of cells (paragraph [0026]-

[0028], Ville teaches measuring the time differences between base stations in

cells).

e.   However, Ville et al. do not discloses the following:

f.   Selecting, at the mobile terminal, a second set of cells from the set of

available cells using a predefined selection rule, the second set of cells including

M<N cells, wherein the predefined selection rule causes a non-selection of a cell

having a same cell identity as another cell in the set of available cells if it is

probable that the cell which is not selected and the another cell belong to one

sectorized base station; and

g.   However, Ville et al. do not teach the second set of cell selection among

first selection of cells nor the sectorized base stations, nevertheless, Padovani et

al. teaches a method for selection of cells among cells that have been selected

previously to form a second set of cells and base stations (abstract, col. 4 lines:

5-41, col. 8 lines: 20-42, col. 7 lines: 14-27, 39-44, & 56-65; Padovani teaches

the process of selecting from a set of cells "pre-candidate" and then further

selecting "candidate sets" hence first and then second selection of set of cells or

sectors).

    h.   Therefore, it would have been obvious to a person of ordinary skill at the

time the invention was made to modify the teachings of Villa et al. to specifically

include the second set of cells from among a first selection of set of cells as

taught by Padovani et al. for the purpose of reducing false alarms for a given pilot

strength detection period (col. 10 lines: 63-67).

9.   Consider claim 2, and as applied to claim 1 above, Ville et al. discloses wherein

time differences at the mobile terminal are measured only for cells in the set of cells

while an exit condition is not fulfilled (paragraph [0027]-[0028], Ville teaches the

constant monitoring of call signals of all base stations in the vicinity in a determined time

frame).

10.   However, Ville et al. do not disclose the method being done for a second set of

cells, nevertheless, Padovani et al. teaches the second set of cells (abstract, col. 4

lines: 5-41, col. 8 lines: 20-42, col. 7 lines: 14-27, 39-44, & 56-65; Padovani teaches the

process of selecting from a set of cells "pre-candidate" and then further selecting to form

a "candidate sets" from the "pre-candidate" hence first and then second selection of set

of cells or sectors).

11.   Therefore, it would have been obvious to a person of ordinary skill at the time the

invention was made to modify the teachings of Villa et al. to specifically include the

second set of cells from among a first selection of set of cells as taught by Padovani et

al. for the purpose of reducing false alarms for a given pilot strength detection period (col. 10 lines: 63-67).

12.   Consider claim 3, and as applied to claim 2 above, Ville et al. discloses wherein the exit condition includes a counter exceeding a predefined limit value (paragraph [0027]-[0028], Ville teaches the activation of the mobile terminal after the location of the base station targeted is located by a minimum of two BTSs hence the counter has reached a define limit value).

13.   Consider claim 4, and as applied to claim 2 above, Ville et al. discloses wherein the exit condition includes a timer exceeding a predefined time limit (paragraph [0027], Ville teaches the use of a timer or an internal clock used to synchronize the mobile with the base station, which is used as a preliminary requisite for the exit condition).

14.   Consider claim 5, and as applied to claim 4 above, Ville et al. discloses wherein the exit condition includes the mobile terminal changing from idle mode to dedicated mode (paragraph [0028], Ville teaches the mobile going from inactive yet "on" to active and "on").

15.   Consider claim 6, and as applied to claim 1 above, Ville et al. discloses wherein a cell from the set of available cells is selected one of:

    a. A base station identity code of the cell is equal to a base station identity code of any other cell from the set of available cells, and one of

        i.   A measured time difference of the cell deviates from measured time differences for other cells sharing the same base station identity code more than a predefined threshold, and

        ii.   A signal strength of the cell is largest among all cells sharing the

same base station identity code and the measured time difference of the

cell deviates less than or equal to the predefined threshold.

16.   However, Ville et al. do not disclose cell from the set of available cells is selected

to the second set of cells whenever one of:

    b. Nevertheless, Padovani et al. teaches a base station identity code of the cell

is not equal to a base station identity code of any other cell from the set of

available cells (abstract, col. 4 lines: 5-41, col. 8 lines: 20-42, col. 7 lines: 14-27,

39-44, & 56-65; Padovani teaches the process of selecting from a set of cells

"pre-candidate" and then further selecting "candidate sets" hence first and then

second selection of set of cells or sectors, fig. 1A, 2-3, & 5A-B, col. 7 lines: 13-

27, & 56-67, col. 8 lines: 20-41, col. 12 lines: 40-60, col. 13 lines: 6-10 & 28-56,

col. 15 lines: 1-13, Padovani teaches the use of predefined thresholds for

selecting from one set of cells and base stations to create a second set of

selected cells and signal strength is also considered by Padovani in selecting a

second set of cells and base stations).

    c. Therefore it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to modify the teachings of Ville et al. to

specifically include identity code of the cell not equal to a base station identity

code of any other cell from the set of available cells as taught by Padovani et al.

for the purposes of reducing false alarms for a given pilot strength detection

period (col. 10 lines: 63-67).

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Kronestedt (US PATENT 6104936), "Method and apparatus for optimizing

  antenna tilt".

- Mudigonda et al. (US patent publication 2004/0176090 A1), "Data throughput

  improvement in IS2000 networks via effective F-SCH reduced active set pilot

  switching".

- Keskitalo et al. (US PATENT 5966670), "Method for transmitting a pilot signal

  and a cel lular radio system".

- Rasanen (US PATENT 6445924 B1), "Method and apparatus for implementing

  handover in a mobile communications system".

- LeBlanc et al. (US PATENT 5960341), "Positioning system having an RF-

  measurements databank".

- Raith (WO 01/58201 A1), "System and method for improving channel monitoring

  in a cellular system".

- Willhoff et al. (US PATENT 6049715), "Method and apparatus for evaluating a

  received signal in a wireless communication utilizing long and short term values".

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Diego Herrera whose telephone number is (571) 272-

0907. The examiner can normally be reached on Monday-Friday, 6:30AM-3: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kincaid G. Lester can be reached on (571) 272-7922. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

D.H.

NICK CORSARO
PRIMARY EXAMINER